Part No. 039259

MC 2255
POWER AMPLIFIER

McIntosh
schematic information

SHEET 1 OF 2

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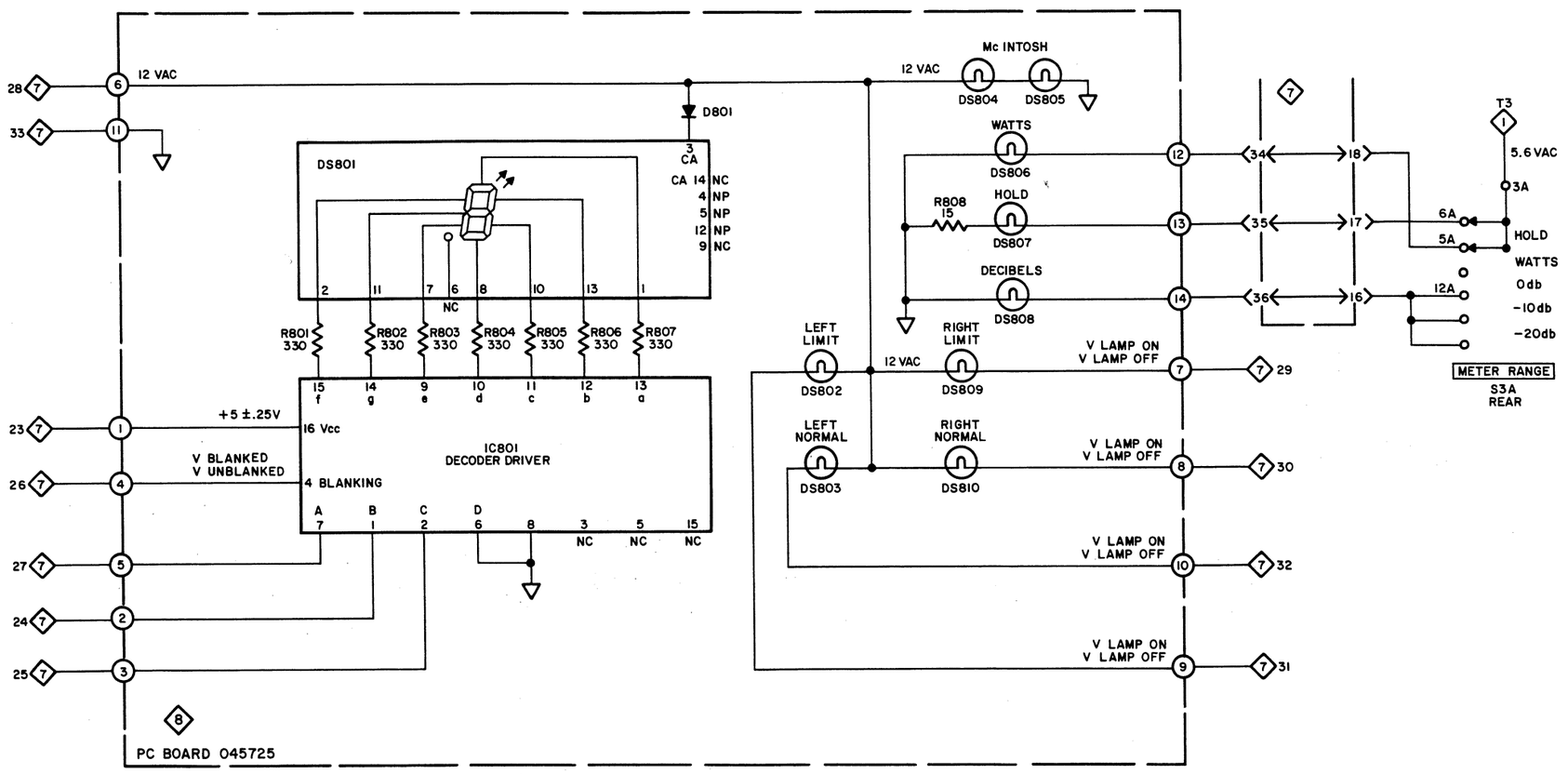


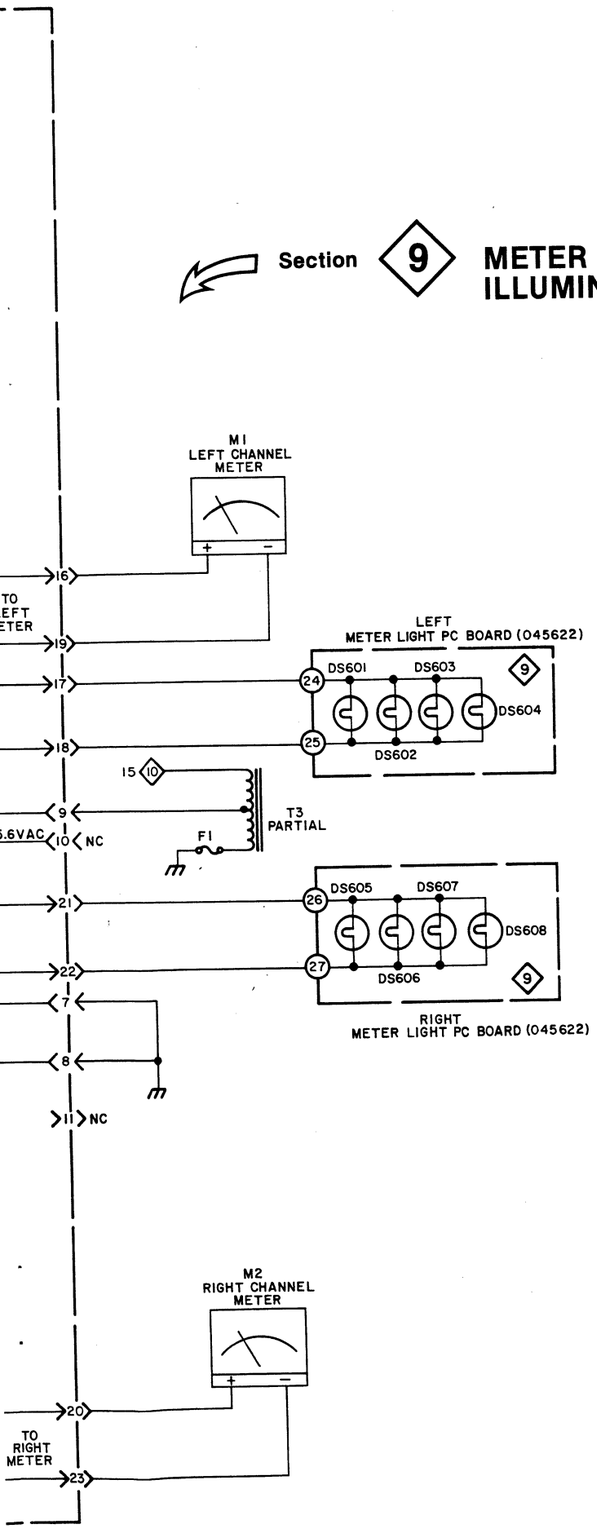
Section 8 **POWER GUARD and METER DISPLAY**

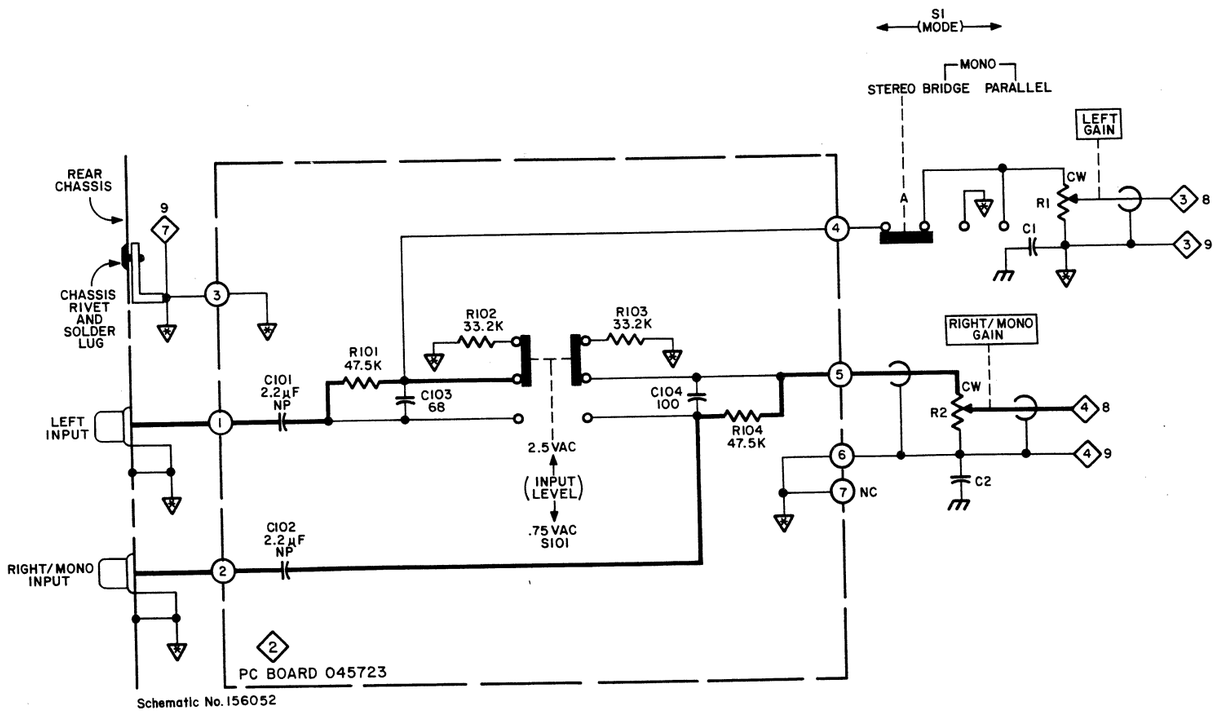
Section 9 **METER DRIVE and ILLUMINATION**

HOLD
WATTS
0dB
-10dB
-20dB
S3 METER RANGE
R4 100K
R3 31.6K
R6 100K
R5 31.6K
LEFT WATTS IN
RIGHT WATTS IN
LEFT dB IN
RIGHT dB IN
C601 47µF
C602 47µF
C603 10µF NP
C604 10µF NP
R601 2.2K
R602 2.2K
R603 14.7K
R604 14.7K
R605 68K
R606 68K
D601
D602
D603
D604
LEFT dB ADJ.
RIGHT dB ADJ.
R607 5K CW
R608 5K CW
C605 33
C606 33
R609 2.2K
R610 2.2K
IC601 LOG AMP
IC602 LOG AMP
IC603 RECTIFIER
IC604 RECTIFIER
+13.8V
+7V
+15V
-15V
+1V
+15V(A)
D605
D606
D607
D608
R611 10K
R612 10K
R613 10K
R614 10K
C607 1.8
C608 1.8
D609
D610
D611
D612
C609 1.5µF
C610 1.5µF
R615 10K
R616 10K
R617 2.2M
R618 2.2M
R619 330K
R620 330K
R621 180K
R622 180K
R623 2.2M
R624 2.2M
R625 47
R626 47
R627 100K
R628 100K
LEFT WATTS ADJ.
RIGHT WATTS ADJ.
R629 10K
R630 10K
R631 3.9K
R632 3.9K
R635 68K
R636 22M
R637 22M
C611 .001
C612 .001
+14.8V
Q603
Q604
Q601
Q602
DC AMP
-.4V
0V
C613 6.8µF
C614 6.8µF
M1 LEFT CHANNEL METER
M2 RIGHT CHANNEL METER
TO LEFT METER
TO RIGHT METER
WATTS HOLD IN
+15±1.5V
-15±1.5V
C615 10µF
C616 100µF
C617 10µF
Q606
Q605
METER DELAY Vcc SWITCH
+14.6V
R634 10K
D613
DELAY IN -24V
R633 22K
-6V
+4V
5.6VAC
NC
T3 PARTIAL
F1
LEFT METER LIGHT PC BOARD (045622)
RIGHT METER LIGHT PC BOARD (045622)
DS601
DS603
DS604
DS602
DS605
DS607
DS608
DS606

Schematic No 156059
PC BOARD 045619

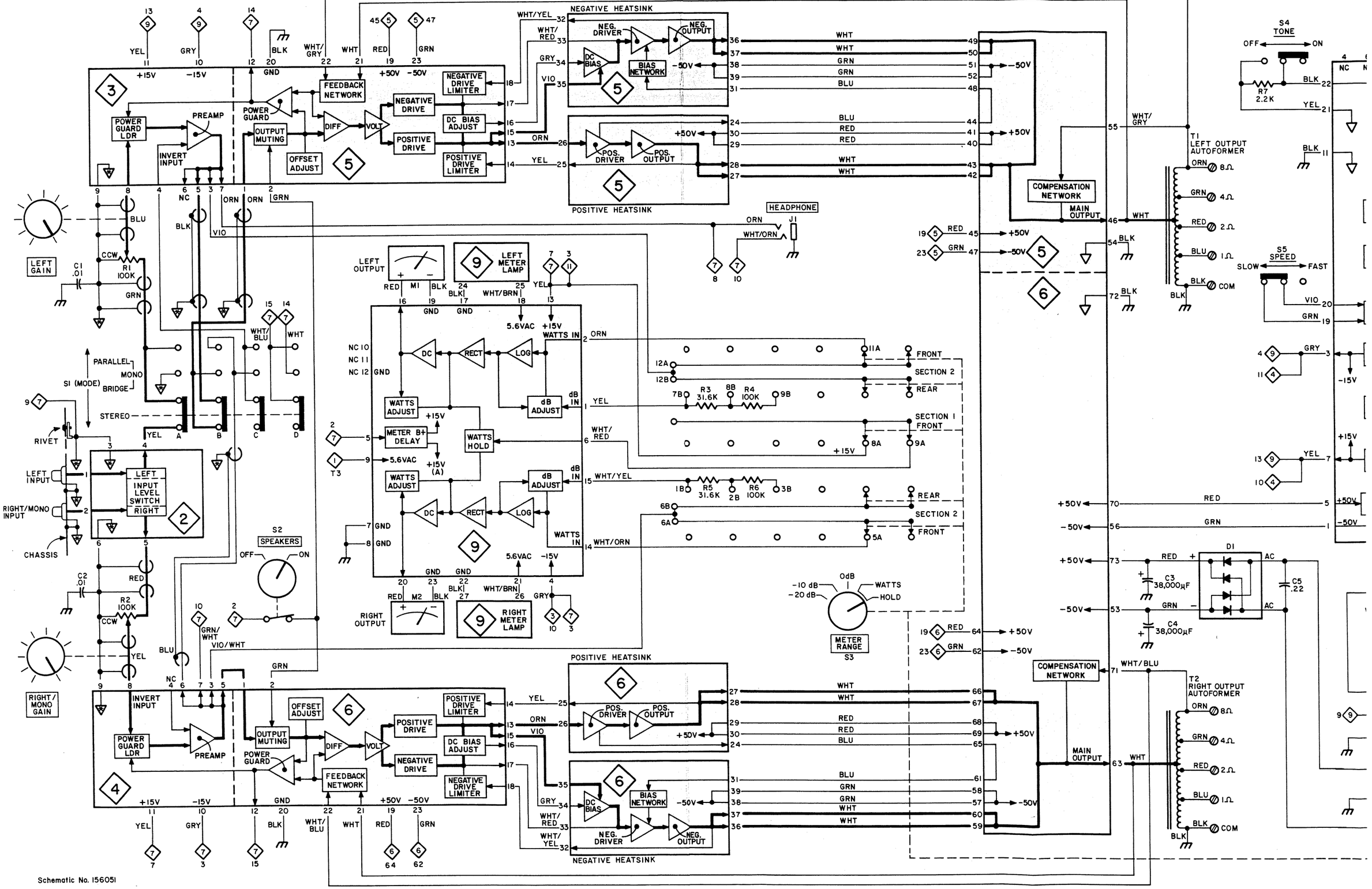
Section 9 **METER DRIVE and ILLUMINATION**

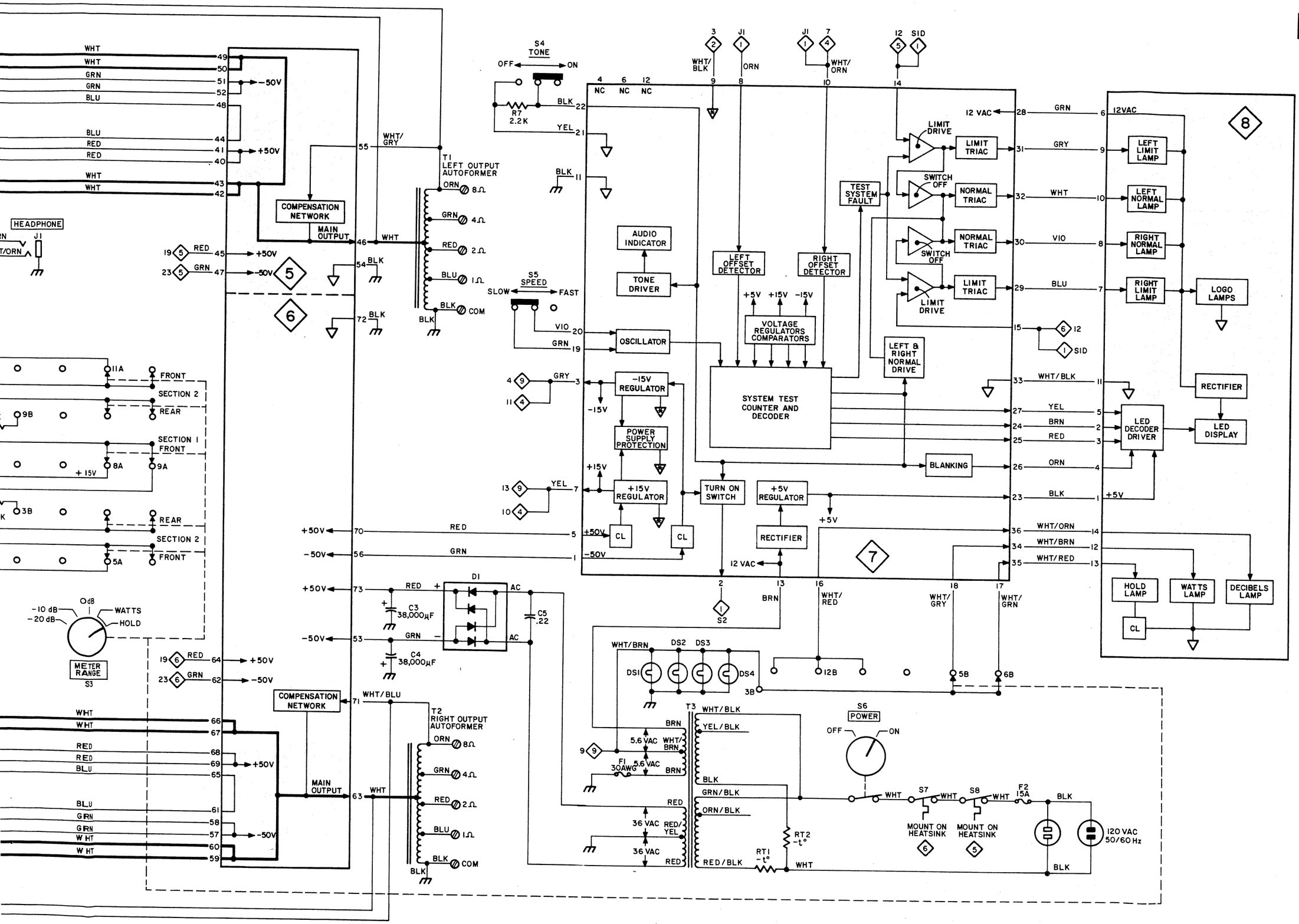




Schematic No. 156052

Section 2 **INPUT LEVEL**


NEGATIVE HEATSINK
POSITIVE HEATSINK
NEG. DRIVER
NEG. OUTPUT
DC BIAS
BIAS NETWORK
POS. DRIVER
POS. OUTPUT
+15V
-15V
GND
-50V
+50V
FEEDBACK NETWORK
POWER GUARD
DIFF
VOLT
NEGATIVE DRIVE
POSITIVE DRIVE
NEGATIVE DRIVE LIMITER
POSITIVE DRIVE LIMITER
DC BIAS ADJUST
OUTPUT MUTING
OFFSET ADJUST
POWER GUARD LDR
PREAMP
INVERT INPUT
COMPENSATION NETWORK
MAIN OUTPUT
T1
LEFT OUTPUT AUTOFORMER
T2
RIGHT OUTPUT AUTOFORMER
8Ω
4Ω
2Ω
1Ω
COM
HEADPHONE
J1
S4
TONE
OFF
ON
R7
2.2K
S5
SPEED
SLOW
FAST
LEFT GAIN
C1
.01
R1
100K
CCW
LEFT METER LAMP
RIGHT METER LAMP
LEFT OUTPUT
RIGHT OUTPUT
M1
M2
WATTS IN
5.6VAC
WATTS ADJUST
METER B+ DELAY
WATTS HOLD
dB ADJUST
dB IN
+15V (A)
T3
METER RANGE
S3
0dB
-10 dB
-20 dB
WATTS
HOLD
PARALLEL
MONO
BRIDGE
STEREO
S1 (MODE)
RIVET
LEFT INPUT
RIGHT/MONO INPUT
CHASSIS
LEFT INPUT LEVEL SWITCH
RIGHT
C2
.01
R2
100K
S2
SPEAKERS
RIGHT/MONO GAIN
FRONT
REAR
SECTION 1
SECTION 2
R3
31.6K
R4
100K
R5
31.6K
R6
100K
D1
C3
38,000μF
C4
38,000μF
C5
.22
Schematic No. 156051



Section 1 INTERCONNECTION DIAGRAM

PC BOARD 045727

7 TEST SYSTEM

6 -15V REGULATOR HIGH

5 -15V REGULATOR LOW

4 +15V REGULATOR HIGH

3 +15V REGULATOR LOW

2 LEFT OFFSET

RIGHT OFFSET

T3 PARTIAL

12VAC

+5±.25V

+14V

+5V REGULATOR

+15±1.5V

+15V REGULATOR Q701

+50V

-15±1.5V

-15V REGULATOR Q703

-50V

FROM REAR CHASSIS RIVIT

TURN ON SWITCH

SPEAKERS S2

IC702 A

IC702 B

IC702 C

IC702 D

IC703 A

IC703 B

IC704 C

IC704 D

IC705 BCD TO DECIMAL DECODER

IC706 COUNTER

Q702 POWER SUPPLY PROTECTION

Q704

Q705

Q706 SYSTEM TEST FAULT DRIVE

Q707 LEFT LIMIT DRIVE

Q708 LEFT LIMIT

Q709 LEFT NORMAL SWITCH

Q710 TEST SYSTEM COUNT

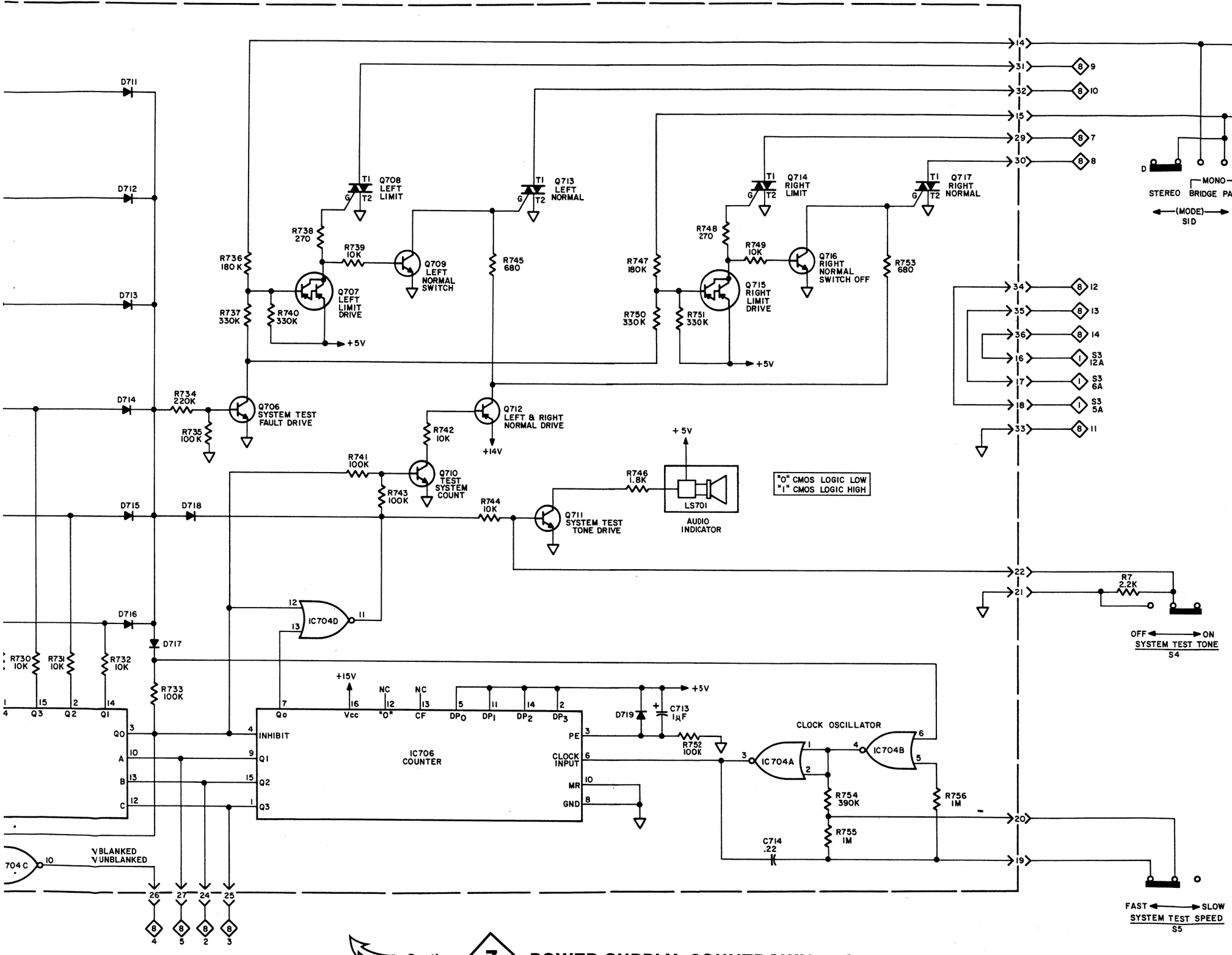
Q711 SYSTEM TEST TONE DRIVE

Q712 LEFT & RIGHT NORMAL DRIVE

Q713 LEFT NORMAL

V BLANKED
V UNBLANKED

Schematic No. 156057



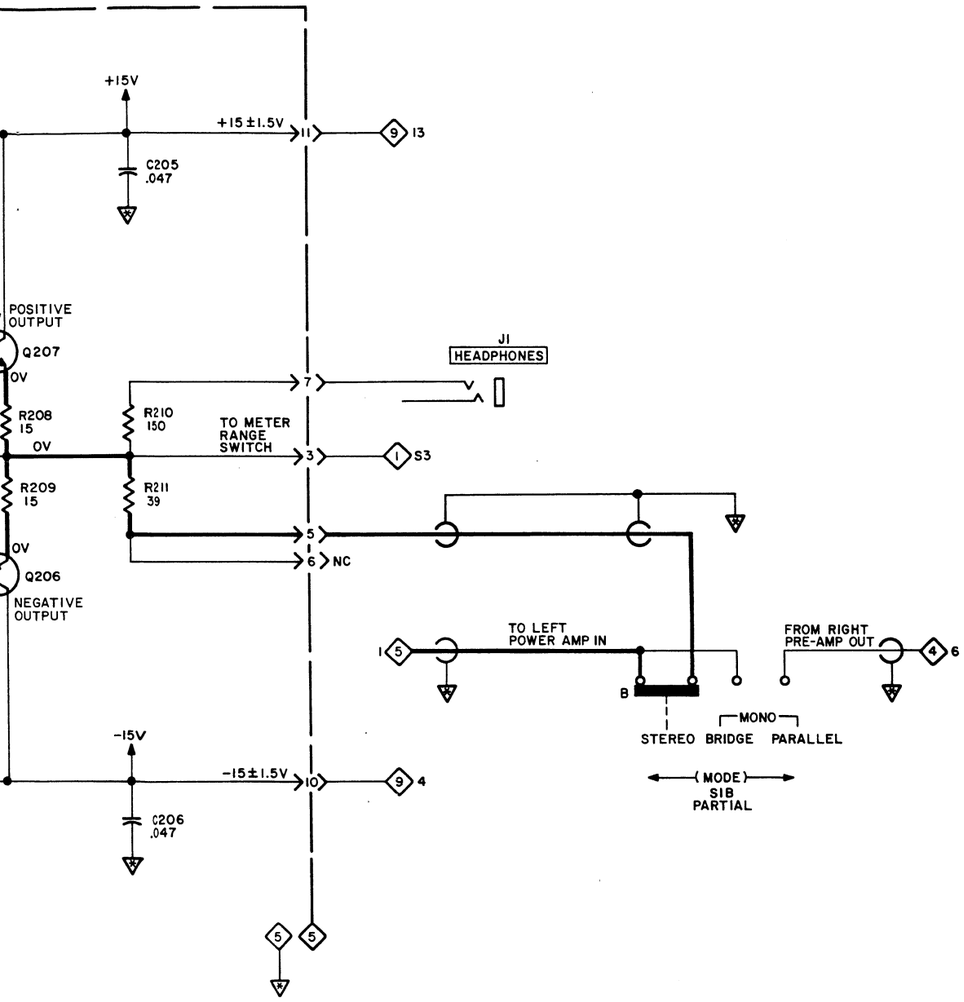
Section 7 **POWER SUPPLY, COUNTDOWN and POWER GUARD DISPLAY DRIVE**

Part No. 039268

McIntosh
schematic information

MC 2255
POWER AMPLIFIER

SHEET 2 OF 2



Section 3 **PREAMP INPUT and HEADPHONE OUTPUT (LEFT CHANNEL)**

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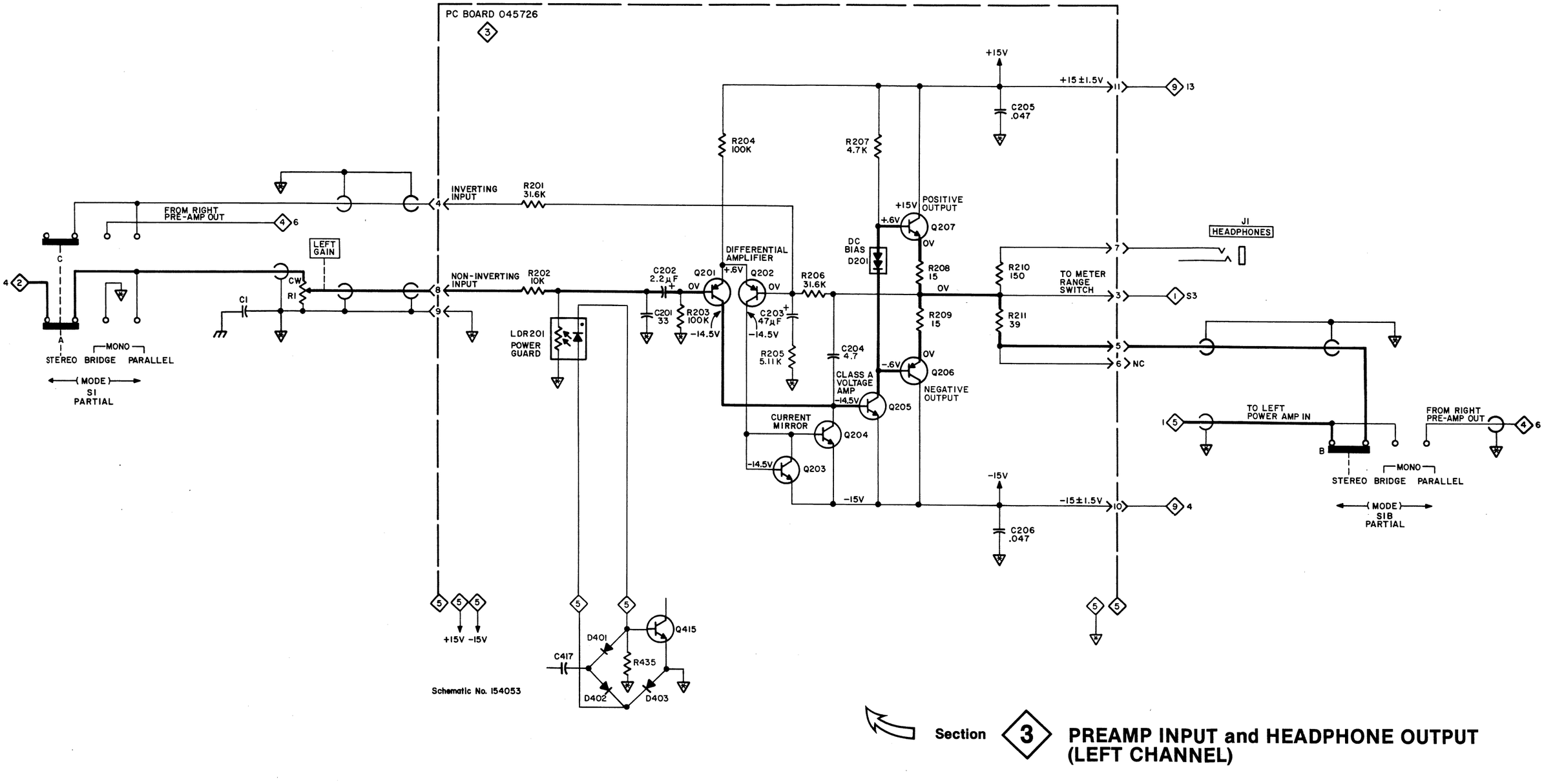
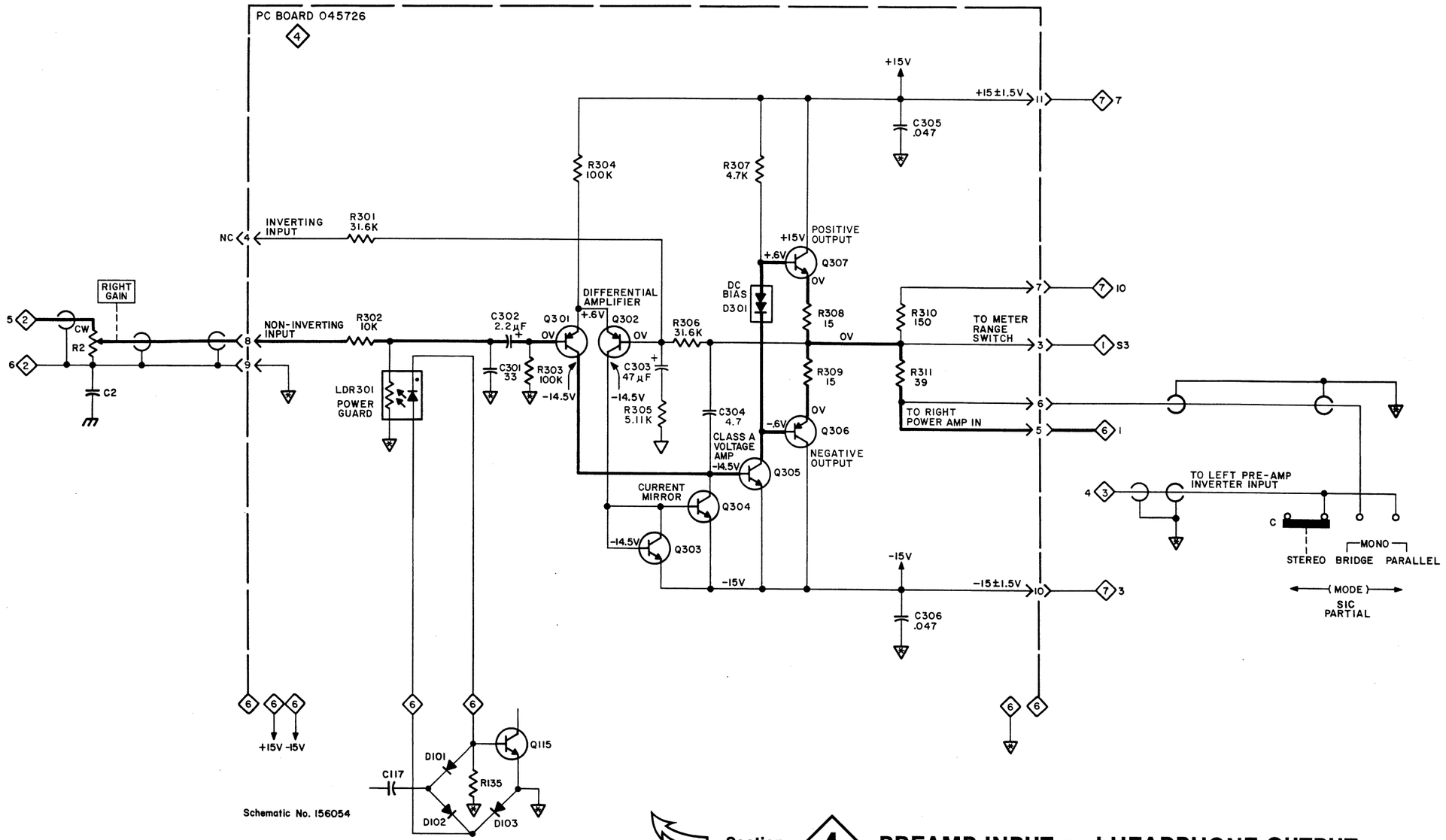


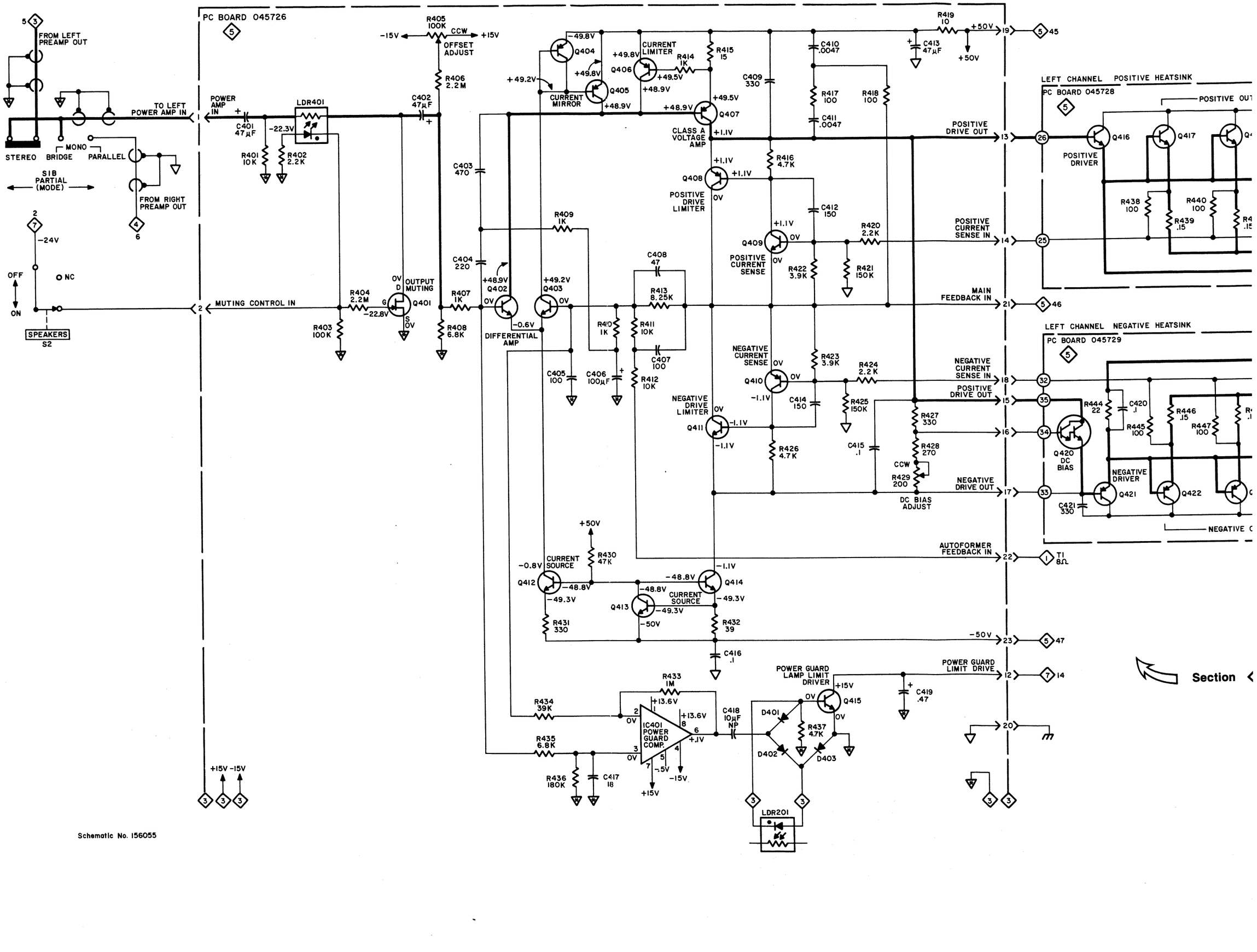
Schematic No. 154053

Section 3 **PREAMP INPUT and HEADPHONE OUTPUT (LEFT CHANNEL)**

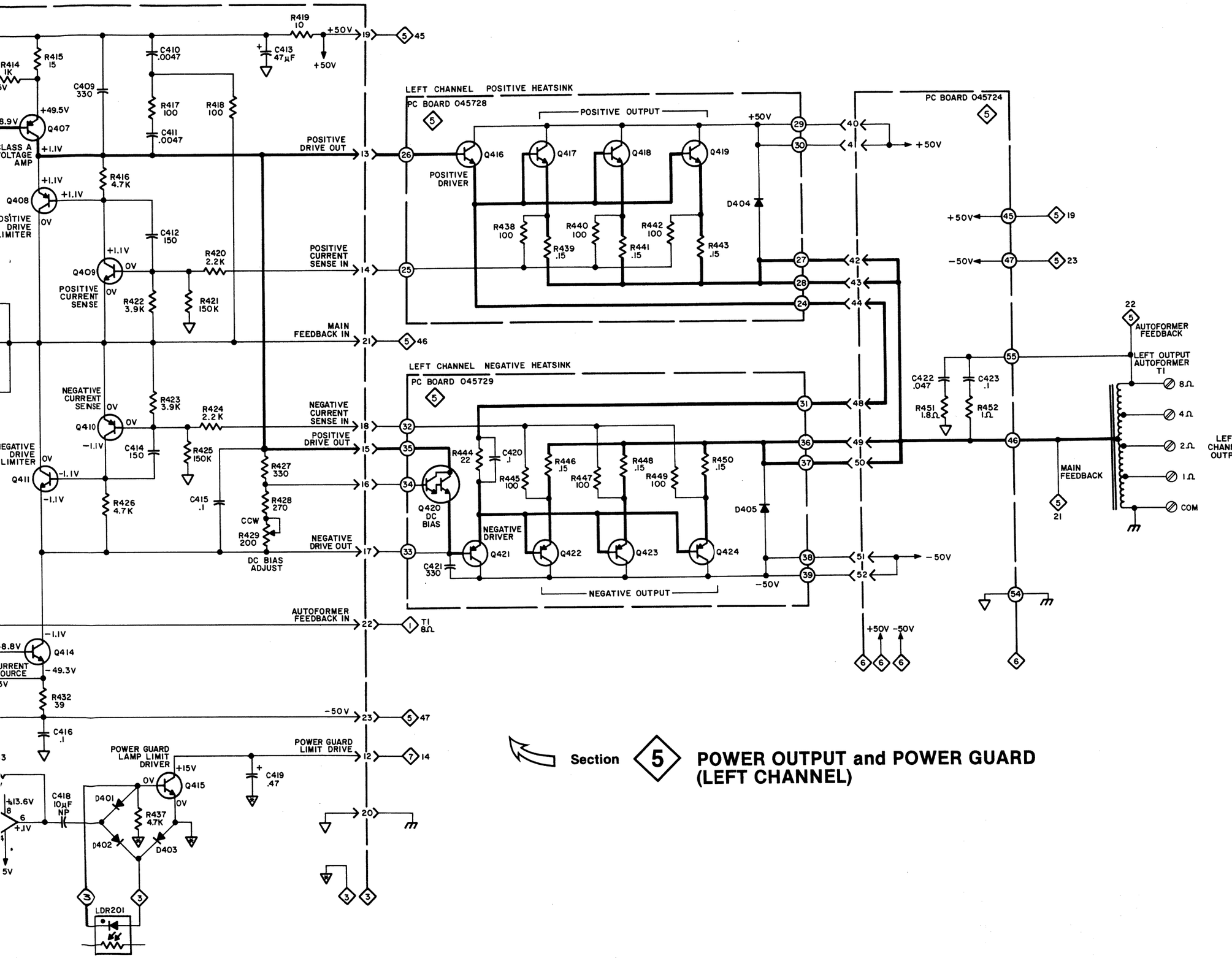


Schematic No. 156054

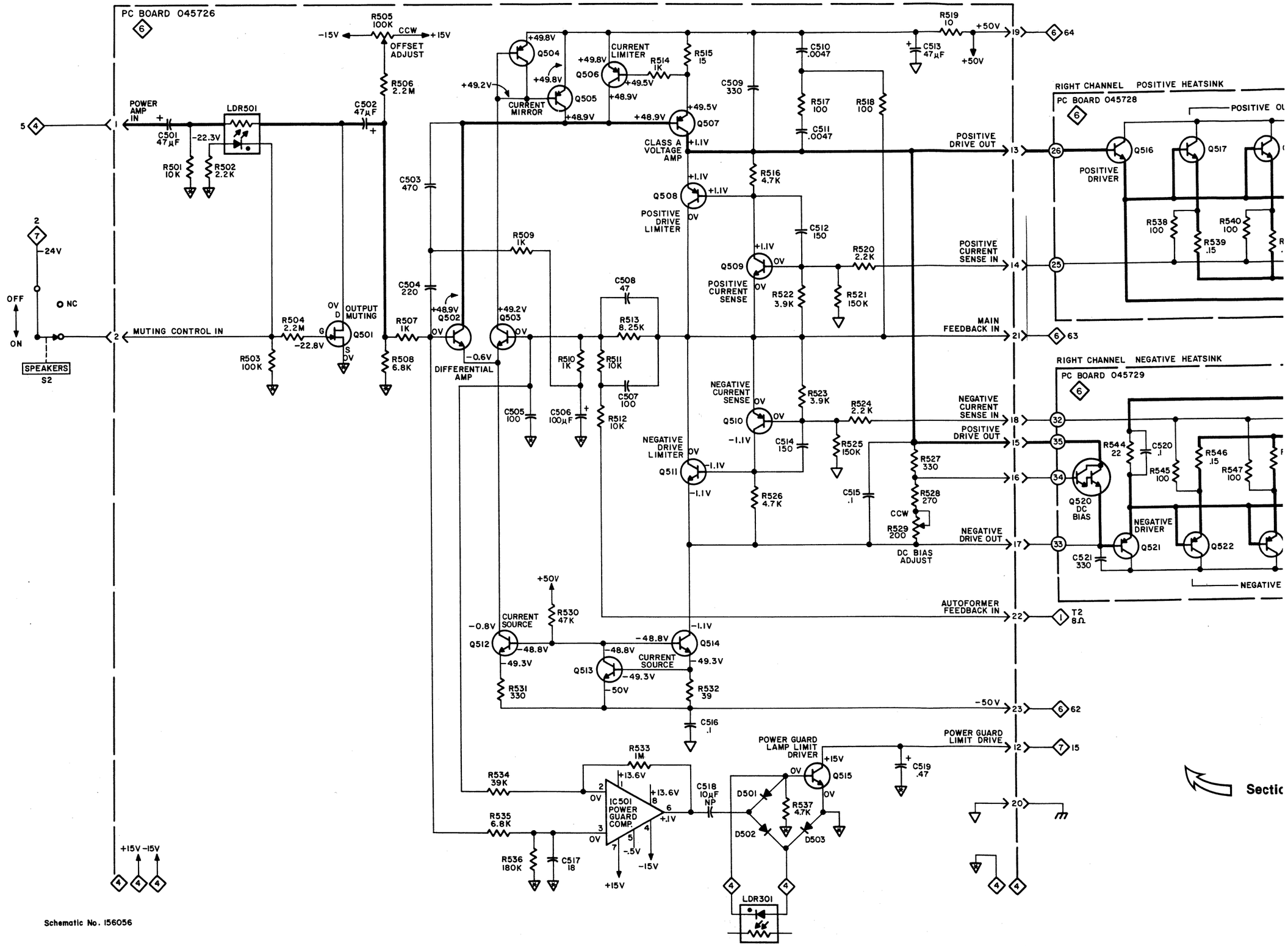
Section 4 **PREAMP INPUT and HEADPHONE OUTPUT (RIGHT CHANNEL)**

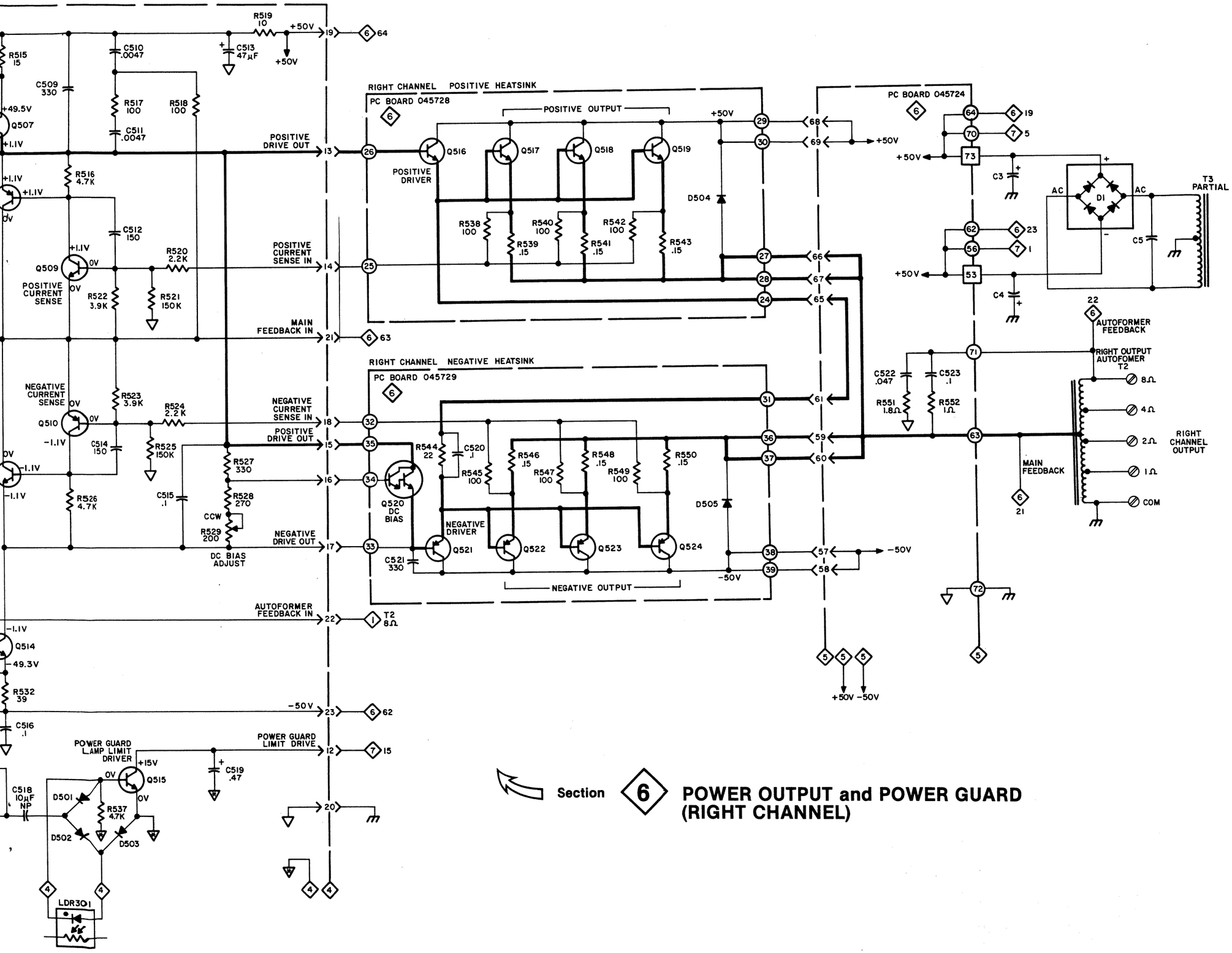


Schematic No. 156055



Section 5 **POWER OUTPUT and POWER GUARD (LEFT CHANNEL)**


PC BOARD 045726
R505 100K
CCW
-15V
+15V
OFFSET ADJUST
R506 2.2M
POWER AMP IN
C501 47µF
LDR501
-22.3V
R501 10K
R502 2.2K
C502 47µF
+49.8V
Q504
+49.8V
Q505
+49.2V
CURRENT MIRROR
CURRENT LIMITER
+49.8V
Q506
R514 1K
+49.5V
+48.9V
R515 15
+48.9V
Q507
+49.5V
CLASS A VOLTAGE AMP
+1.1V
C509 330
C510 .0047
R517 100
C511 .0047
R518 100
R519 10
+50V
C513 47µF
+50V
POSITIVE DRIVE OUT
RIGHT CHANNEL POSITIVE HEATSINK
PC BOARD 045728
POSITIVE DRIVER
Q516
Q517
R538 100
R539 .15
R540 100
POSITIVE CURRENT SENSE IN
MAIN FEEDBACK IN
C503 470
R509 1K
C504 220
C508 47
R513 8.25K
R507 1K
+48.9V
Q502
+49.2V
Q503
-0.6V
DIFFERENTIAL AMP
R510 1K
R511 10K
C507 100
C505 100
C506 100µF
R512 10K
R508 6.8K
R503 100K
R504 2.2M
-22.8V
OV
D
G
S
OUTPUT MUTING
Q501
MUTING CONTROL IN
OFF
ON
NC
SPEAKERS
S2
-24V
+1.1V
Q508
POSITIVE DRIVE LIMITER
R516 4.7K
C512 150
Q509
POSITIVE CURRENT SENSE
R520 2.2K
R522 3.9K
R521 150K
NEGATIVE CURRENT SENSE
Q510
-1.1V
C514 150
R523 3.9K
R524 2.2K
R525 150K
NEGATIVE DRIVE LIMITER
Q511
R526 4.7K
C515 .1
R527 330
R528 270
CCW
R529 200
DC BIAS ADJUST
NEGATIVE CURRENT SENSE IN
POSITIVE DRIVE OUT
NEGATIVE DRIVE OUT
RIGHT CHANNEL NEGATIVE HEATSINK
PC BOARD 045729
Q520 DC BIAS
R544 22
C520 .1
R545 100
R546 .15
R547 100
NEGATIVE DRIVER
Q521
Q522
C521 330
NEGATIVE
AUTOFORMER FEEDBACK IN
T2 8Ω
+50V
R530 47K
CURRENT SOURCE
Q512
-0.8V
-48.8V
-49.3V
R531 330
Q513
-50V
-1.1V
Q514
-48.8V
-49.3V
R532 39
-50V
C516 .1
POWER GUARD LAMP LIMIT DRIVER
+15V
Q515
C519 .47
POWER GUARD LIMIT DRIVE
R533 1M
R534 39K
R535 6.8K
IC501 POWER GUARD COMP.
+13.6V
+.1V
-.5V
-15V
+15V
C518 10µF NP
D501
D502
D503
R537 4.7K
R536 180K
C517 18
LDR301
+15V -15V
Schematic No. 156056



Section 6 **POWER OUTPUT and POWER GUARD (RIGHT CHANNEL)**